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To: Community Based Residential Facilities
Adult Family Homes
Resident Care Apartment Complexes
Adult Day Care
Wisconsin Assisted Living Association
Residential Services Association of Wisconsin
Wisconsin Association of Homes/Services for the Aging
Wisconsin Health Care Association
County Departments of Health/Human Service
Bureau of Long Term Support

CBRF 07
AFH 05
RCAC 05
ADC 05

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Insulin and Assisted Living

The purpose of this memo is to provide a list of answers to questions frequently asked by providers regarding the use of insulin in assisted living facilities. The list of questions and answers are organized in the following order: All Assisted Living Providers, Adult Family Home (AFH), Community Based Residential Facility (CBRF), and Residential Care Apartment Complex (RCAC). Following the question and answer section, the memo addresses the storage of insulin.

All Assisted Living Providers

1) What are the requirements for registered nurse delegation?

N 6.03 states: "The supervision and direction of delegated nursing acts an R.N. shall:

- (a) Delegate tasks commensurate with educational preparation and demonstrated abilities of the person supervised;
- (b) Provide direction and assistance to those supervised;
- (c) Observe and monitor the activities of those supervised; and,
- (d) Evaluate the effectiveness of acts performed under supervision."

[N 6.03]

HFS 83.33(3)(e)3 mentions the requirement of a written protocol. In addition, HFS 83.32(2)(a)2 requires that the individual service plan identify the facility's responsibility for administering medications.

To prove these requirements are being met, a registered nurse will need to document delegation of duties to at least one position title. In addition, a registered nurse will need to document in the employee record of the person who is in that identified position, that the staff person is competent to conduct the tasks the nurse is delegating.

Adult Family Home

1) Who can administer injections?

When there is a physician's order for injections, injections can be administered by: A registered nurse; a licensed practical nurse under the general supervision of a registered nurse, or under the direction of a physician; a physician; a pharmacist; or appropriately-trained, non-licensed AFH staff. Injections can also be administered by the resident and/or a family member. [HFS 88.07(2)(c) and HFS 88.07(3)(d)]

2) Can a registered nurse draw up insulin and administer the insulin to residents?

A registered nurse has the authority, by virtue of their license, to draw up and administer insulin. [HFS 88.07(3)(d), N 6.03]

3) Can a licensed practical nurse draw up insulin and administer the insulin to residents?

A licensed practical nurse has the authority, by virtue of their license, to draw up and administer insulin. An LPN, however, is restricted, by virtue of nurse licensure, to perform tasks under general or direct supervision of a registered nurse or by direction of a physician. [HFS 88.07(3)(d), N 6.03, N 6.04]

4) Can staff draw up insulin and administer insulin to residents?

Yes. Staff can perform this task if they have received the appropriate training. AFH staff, however, may not be licensed; and residents and families should be made aware that unlicensed AFH staff may not have the amount of training that an RN or LPN may have. If unlicensed AFH staff is administering injections, it is recommended that they receive training from an RN, and that an RN be available for consultation. [HFS 88.07(2)(c) and HFS 88.07(3)(d)]

5) Can an RN pre-draw insulin for AFH staff to administer?

Yes. If the RN is delegating insulin administration, then the RN may decide to pre-draw insulin for AFH staff to administer. RN delegation is not required in an AFH for staff to administer insulin. The RN must be aware of the standards for pre-drawing insulin, storing, and labeling. In addition, in an AFH an RN can only pre-draw one dose at a time, because medication transfer from the pharmacy container is limited to physicians or pharmacists, unless the transfer is for a single dose. [N 6.03]

- 6) *Can an LPN pre-draw insulin for staff to administer?*
No. An LPN cannot delegate, and therefore, cannot pre-draw insulin for staff to administer. If there is an RN who is delegating insulin administration to AFH staff, then an LPN can pre-draw insulin, but only a single syringe.
- 7) *Can AFH staff dial in the dose on an insulin pen?*
Yes. [HFS 88.07(2)(c) and HFS 88.07(3)(d)]
- 8) *Can AFH staff conduct finger-sticks and blood sugar checks with glucometers?*
Yes. CLIA waivers are required. [Section 353 of Public Service Health Act 1988] See BQA Memo 03-008 http://dhfs.wisconsin.gov/rl_DSL/Publications/03-008.htm.
- 9) *When a registered nurse delegates insulin administration, how often must the nurse be present for proper supervision?*
The amount of supervision is dependent on the professional judgment of the RN. RN delegation is not required in an AFH, but may occur.

Community Based Residential Facility (CBRF)

- 1) *Who can administer injections?*
An injection can be administered by a registered nurse, a licensed practical nurse (for a resident in a stable medical condition), and CBRF staff when a registered nurse delegates administration to the CBRF staff. [HFS 83.33(3)(e)2b]
- 2) *Can a registered nurse draw up insulin and administer the insulin to residents?*
A registered nurse has the authority, by virtue of HFS 83 and their license, to draw up and administer insulin. [83.33(3)(e)2b, N 6.03]
- 3) *Can a licensed practical nurse draw up insulin and administer the insulin to residents?*
A licensed practical nurse has the authority, by virtue of HFS 83 and their license, to administer insulin only under the general supervision of a registered nurse or under the direction of a physician. HFS Ch. 83 limits administration of insulin by an LPN to residents who have stable medical conditions. [83.33(3)(e)2b, N 6.04]
- 4) *Can staff draw up insulin and administer insulin to residents?*
Yes. An RN must delegate administration of insulin and other injections to CBRF staff. Delegation can include the process of drawing up the dose of insulin. The RN must assure that the CBRF staff is trained and competent to perform the task. [83.33(3)(e)2b, N 6.03]
- 5) *Can an RN pre-draw insulin for CBRF staff to administer?*
Yes the RN may decide when they delegate, to pre-draw insulin for CBRF staff to administer. The RN must be aware of the standards for pre-drawing insulin, storing and labeling. [83.33(3)(e)2b, N 6.03]

6) *Can an LPN pre-draw insulin for staff to administer?*

Yes, under general supervision of an RN. There must be an RN who is delegating insulin administration to CBRF staff. The RN may delegate pre-drawing of insulin to the LPN, and actual administration of the insulin to CBRF staff. [83.33(3)(e)2b, N 6.03]

7) *Can CBRF staff dial in the dose on an insulin pen?*

If the RN delegates insulin administration to staff and trains them to use insulin pens, then they can do so.

If there is no RN delegating, the CBRF staff may, on occasion, assist a resident to verify the dose the resident has dialed in. CBRF staff, however, who dial in the dose are no longer supervising self administration; rather they are assisting or administering insulin, which requires RN delegation. [83.33(3)(e)2b, N 6.03]

8) *Can CBRF staff perform finger-sticks and blood sugar checks with glucometers?*

Yes. A CLIA waiver is required. [Section 353 of Public Service Health Act 1988] See BQA Memo 03-008 http://dhfs.wisconsin.gov/rl_DSL/Publications/03-008.htm

9) *When a registered nurse delegates insulin administration, how often must the nurse be present for proper supervision?*

The amount of supervision is dependent on the professional judgment of the RN. In HFS Ch. 83, "Supervision" means providing protective oversight of the residents' daily functioning, keeping track of residents' whereabouts, and providing guidance and intervention when needed by a resident. In the case of administration of insulin injections, the RN should judge a caregiver's competency to administer insulin injections correctly. The competency level of the caregiver and the resident's condition should determine the amount of supervision a RN must provide to that caregiver in order to provide protective oversight for that resident. [HFS 83.04(64), 83.33(3)(e)2b, N 6.03]

10) *Are residents who are on sliding-scale insulin classified as having a stable medical condition?*

Resident condition also falls under the professional judgment of the RN. In HFS Ch. 83, "Stable medical condition" means that a person's clinical condition is predictable, does not change rapidly, and medical orders are not likely to involve frequent changes or complex modifications. A sliding-scale insulin order typically suggests that a resident's condition is not stable. However, in some cases, a resident may have had the same sliding scale for years. Their condition could be predictable, and this could be considered a stable medical condition. In other cases, sliding-scale orders that change ranges, or sliding scales used for new medical conditions or disease progression, may not be considered stable. Therefore, judgment and justification of a "stable medical condition" really falls under the professional responsibilities of the registered nurse. [83.04(62), 83.33(3)(e)2b, N 6.03]

11) When insulin is pre-drawn does each syringe need to be labeled?

There is no regulation in HFS Ch. 83 that specifically indicates each syringe should be labeled. The insulin syringes could be in a zip lock bag with a label on the bag. However, **it is highly recommended that each syringe be labeled in order to decrease medication errors.**

12) What can CBRF staff do when “supervising” self administration of insulin?

“Supervision,” defined at HFS 83.33(3)(d)2, indicates the staff person can prompt and observe. Occasionally, residents who are self administering may ask a staff person for a little help which would not rise to the level of administration by staff if done occasionally. Examples of that occasional help can include the following: 1) Confirm the dose of insulin the resident drew up; 2) obtain the pre-drawn dose of insulin from the refrigerator for the dose that the resident requests; 3) Confirm the dose the resident dialed in; 4) obtain supplies the resident requests; 5) hold the cap for the insulin syringe; and 6) dispose of used supplies.

Residential Care Apartment Complex

1) Who can administer injections?

An injection can be administered by a registered nurse, a licensed practical nurse under the general supervision of a registered nurse, under the direction of a physician, and by RCAC staff when a registered nurse delegates administration to the RCAC staff. [HFS 89.23(4)(a)2]

2) Can a registered nurse draw up insulin and administer the insulin to residents?

A registered nurse has the authority, by virtue of HFS Ch. 89 and their license, to draw up and administer insulin. [HFS 89.23(4)(a)2, N 6.03]

3) Can a licensed practical nurse draw up insulin and administer the insulin to residents?

A licensed practical nurse has the authority, by virtue of their license, to draw up and administer insulin. HFS Ch. 89 limits medication administration to a resident by staff only to those RCACs that have an RN who delegates medication administration. An RCAC can have an LPN administer medications only when an RN delegates that activity. [HFS 89.23(4)(a)2, N 6.03, N 6.04]

4) Can staff draw up insulin and administer insulin to residents?

Yes. An RN must delegate administration of insulin and other injections to RCAC staff. Delegation can include the process of drawing up the dose of insulin. The RN must assure that the RCAC staff is trained and competent to perform the task. [HFS 89.23(4)(a)2, N 6.03]

5) Can an RN pre-draw insulin for RCAC staff to administer?

Yes. The RN may decide, when they delegate, to pre-draw insulin for RCAC staff to administer. The RN must be aware of the standards for pre-drawing insulin, storing, and labeling. [HFS 89.23(4)(a)2, N 6.03]

6) *Can an LPN pre-draw insulin for staff to administer?*

Yes. There must be an RN who is delegating insulin administration to RCAC staff. The RN may delegate pre-drawing of insulin to the LPN and actual administration of the insulin to RCAC staff. [HFS 89.23(4)(a)2, N 6.03, N 6.04]

7) *Can RCAC staff dial in the dose on an insulin pen?*

If the RN delegates insulin administration to staff and trains them to use insulin pens, they may do so. [HFS 89.23(4)(a)2, N 6.03]

8) *Can RCAC staff do finger-sticks and blood sugar checks with glucometers?*

Yes. CLIA waivers are required. [Section 353 of Public Service Health Act 1988] See BQA Memo 03-008 http://dhfs.wisconsin.gov/rl_DSL/Publications/03-008.htm.

9) *When a registered nurse delegates insulin administration, how often must the nurse be present for proper supervision?*

The amount of supervision is dependent on the professional judgment of the RN. [HFS 89.23(4)(a)2, N 6.03]

10) *When insulin is pre-drawn, does each syringe need to be labeled?*

There is no regulation in HFS Ch. 89 that specifically indicates each syringe be labeled. The insulin syringes could be in a zip lock bag with a label on the bag. However, **it is highly recommended that each syringe be labeled in order to decrease medication errors.**

11) *Can the Registered Nurse delegate insulin administration for a resident who has a sliding-scale order?*

Registered nurses can delegate a wide range of tasks, including sliding-scale insulin.

Typically, the issue that arises is the level of supervision that is required when a registered nurse delegates activities. For sliding-scale insulin, a resident who is stable may only require general supervision, whereas, a resident who is unstable getting sliding-scale insulin may require that the delegating RN provide direct supervision (be in the building).

Guide for Storage of Insulin

Insulin Storage:

Insulin is available from drug manufacturers in three basic packages; vials, pens, and cartridges. In addition to these prepackaged forms of insulin; pharmacists, physicians, nurses, and patients may mix insulin themselves in vials or syringes and/or pre-draw insulin for later use by the patient.

General insulin storage requirements are as follows:

1. Never freeze. (Frozen insulin should be thrown away.)
2. Never use insulin beyond the expiration date stamped on the vial, pen, or cartridge that is supplied from the drug manufacturer.
3. Never expose insulin to direct heat or light.
4. Inspect insulin prior to each use. Any insulin that has clumps or solid white particles should not be used. Insulin that is supposed to be clear should not have any cloudy appearance.
5. Check storage guidelines specific to the insulin formulation. This is usually in the product package insert.
6. Unopened, not-in-use insulin should be stored in a refrigerator at a temperature of 36-46°F.
7. Opened, in-use insulin should be stored at room temperature below 86°F.
8. If receiving insulin through the mail, always confirm that the insulin is going to be stored under proper conditions.
9. When storing pre-filled insulin syringes, do so with the needle pointing up.

Mixing insulin in vials or in pre-drawn syringes is a **generally** acceptable approach to customize insulin treatment and minimize injections. It is recommended that the same technique or procedure to mix and store these customized preparations be utilized. Some insulins, when mixed, may react with each other; therefore, it is recommended that all mixtures be stored for a consistent amount of time before using, or that they be used immediately. **When mixing insulin, it is extremely important that the rapid-acting insulin be drawn into the syringe FIRST, followed by the long-acting.**

The following tables address specific expiration, or beyond-use dating guidelines, that apply to insulin products that have been opened, mixed, or pre-drawn. Every effort has been made to assure the accuracy of the attached information. This information is not intended to be used as a tool to prescribe medication or provide other clinical services. Please consult with a pharmacist for the most up-to-date information on insulin storage requirements.

Maximum Storage Conditions for Insulin Vials

	Refrigerated 36-46°F		Room Temperature 59-86°F
Product Name	Opened	Unopened	Opened/Unopened
Humulin R	28 days	Until Expiration Date Stamp	28 days
Humulin N	28 days	Until Expiration Date Stamp	28 days
Humulin 70/30	28 days	Until Expiration Date Stamp	28 days
Humalog	28 days	Until Expiration Date Stamp	28 days
Humalog 75/25	28 days	Until Expiration Date Stamp	28 days
Humulin 50/50	28 days	Until Expiration Date Stamp	28 days
Novolin R	30 days	Until Expiration Date Stamp	30 days
Novolin N	30 days	Until Expiration Date Stamp	30 days
Novolin 70/30	30 days	Until Expiration Date Stamp	30 days
Novolog	28 days	Until Expiration Date Stamp	28 days
Lantus	28 days	Until Expiration Date Stamp	28 days
Apridra	28 days	Until Expiration Date Stamp	28 days
Levemir	42 days	Until Expiration Date Stamp	42 days

Maximum Storage Conditions for Insulin Pens

	Refrigerated 36-46°F		Room Temperature 59-86°F
Product Name	Opened	Unopened	Opened/Unopened
Humulin N	Do not Refrigerate	Until Expiration Date Stamp	14 days
Humulin 70/30	Do Not Refrigerate	Until Expiration Date Stamp	10 days
Humalog	Do Not Refrigerate	Until Expiration Date Stamp	28 days
Humalog 75/25	Do Not Refrigerate	Until Expiration Date Stamp	10 days
Novolin R 1.5 ml	Do Not Refrigerate	Until Expiration Date Stamp	30 days
Novolin R 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	28 days
Novolin N 1.5 ml	Do Not Refrigerate	Until Expiration Date Stamp	7 days
Novolin N 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	14 days
Novolin 70/30 1.5 ml	Do Not Refrigerate	Until Expiration Date Stamp	7 days
Novolin 70/30 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	10 days
Novolog 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	28 days
Novolin R Prefilled	Do Not Refrigerate	Until Expiration Date Stamp	30 days
Novolin N Prefilled	Do Not Refrigerate	Until Expiration Date Stamp	7 days
Novolin 70/30 Prefilled	Do Not Refrigerate	Until Expiration Date Stamp	7 days
Levemir	Do Not Refrigerate	Until Expiration Date Stamp	42 days

Storage Conditions for Insulin Cartridges

	Refrigerated 36-46°F		Room Temperature 59-86°F
Lilly Product Name	Opened	Unopened	Opened/Unopened
Humalog 1.5 ml	28 days	Until Expiration Date Stamp	28 days
Humalog 3 ml	28 days	Until Expiration Date Stamp	28 days
Novolin R 1.5 ml	Do Not Refrigerate	Until Expiration Date Stamp	30 days
Novolin R 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	28 days
Novolin N 1.5 ml	Do Not Refrigerate	Until Expiration Date Stamp	7 days
Novolin N 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	14 days
Novolin 70/30 1.5 ml	Do Not Refrigerate	Until Expiration Date Stamp	7 days
Novolin 70/30 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	14 days
Novolog 3 ml	Do Not Refrigerate	Until Expiration Date Stamp	28 days
Apidra	Do Not Refrigerate	Until Expiration Date Stamp	28 days
Levemir	Do Not Refrigerate	Until Expiration Date Stamp	42 days

Maximum Storage Conditions for Syringes Pre-drawn or Vials Premixed*

*(post drug manufacturer by pharmacist, patient and/or other health care professional)

Product	Refrigerated	Room Temperature	Source/Comments
All Insulin Types (single formulation) Syringe	30 days	No Information	American Diabetes Association Novo Nordisk
All Insulin Types (single formulation) Syringe or Vial	21 days	No Information	Eli Lilly U.S.M.D. Medical Information Services
Novolin R & N	30 days	No Information	
Novolog and Novolin N	Use Immediately Cannot Pre-draw	Use Immediately Cannot Pre-draw	Draw up Novolog first
Humulin R & N	30 days	No Information	
Humalog & N	Use immediately Cannot Pre-draw	Use Immediately Cannot Pre-draw	Draw up Humalog First
Lantus	Use immediately Cannot Pre-draw	Use Immediately Cannot Pre-draw	NEVER MIX
Apidra	Use immediately Cannot Pre-draw	Use immediately Cannot Pre-draw	Can only mix with NPH
Levemir	Use Immediately Cannot Pre-draw	Use Immediately Cannot Pre-draw	NEVER MIX